BY ORDER OF THE COMMANDER

89 AIR WING INSTRUCTION 21-108

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Maintenance

HANGAR LAUNCH PROCEDURES

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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This instruction implements procedures and requirements for the timely and safe hangar launch for all 89th Airlift Wing (89 AW) aircraft from any hangar. It applies to maintenance and aircrew personnel involved with the preflight and hangar departure. Additional aircrew guidance for hangar departures are outlined in the aircraft specific Flight Operation Manuals.

1. General. This instruction is mandatory for all hangar departures. ***NOTE:*** The aircrew of C-32A aircraft only, is authorized to operate the auxiliary power units (APUs) in the hangar. The aircraft engines will not be started during the aircraft tow, e.g. aircraft is moving. The engine start may begin after the pushback, when the aircraft has come to a complete stop, and the fireguard with fire bottle is in position. If the tow is to continue after engine start, the start may begin, as the tow vehicle is being turned around and reconnected. The tow operation may continue once both engines are started, IAW AFOSH 91-100. Fire bottle use for engine start is mandatory.

2. Responsibilities:

2.1. Production Superintendent (SAM-4)

2.1.1. Coordinate all manning requirements and responsibilities in this instruction.

2.1.2. Interface with the aircrew, primarily the aircraft commander, to ensure crew needs are met and the guidance in this instruction is adhered to.

2.1.3. All AFOSH Standards still apply during tow operations. Wing and tail walkers will be utilized.

2.1.4. NOTE: Under **NO** circumstance will maintenance start the APU in the hangar. Only the flight crew will start the APU in the hangar **(C-32 only)**.

2.1.5. Support equipment to include fire bottle, power unit, and start cart will be positioned to avoid a hazard during the towing operation, but allow immediate availability if needed for engine

starts. Deicers, for end of runway usage, and additional tow vehicles, to move AGE equipment or open hangar doors in the event of hangar door motor failure, should also be available.

2.1.6. Maintenance will also provide additional services and safety measures. Three qualified electric hangar door operators will be readily available to open and close the electric doors for unqualified crewmembers and passengers. Hangar doors **will not** be left open for extended periods of time. This is to prevent the accumulation of moisture or ice on the aircraft or hangar floor. Maintenance personnel will also be responsible for the removal of moisture or other slip hazards from the hangar floor. Constant vigilance to slip hazards must be employed during the entire hangar launch process.

2.1.7. Situations may require the aircraft to be pulled out for communication checks, e.g. history of communication problems. This action should be coordinated through the aircraft commander and accomplished early in the launch sequence. This will allow the aircraft adequate time to thaw and maintenance time to remove any slip hazards from the floor prior to passenger arrival.

2.1.8. Prior to DV arrival ensure the crew chief has coordinated with the pilot on the signals and timing for ground power removal. The crew chief must also discuss the tow and engine start operations with the pilot.

2.1.9. The hangar launch process must be executed smoothly and seamlessly to ensure the wing's mission continues on time. Consider manning requirements to support the hangar launch for the following positions:

2.1.9.1. All specialties available, e.g. Jets, E/E, Hyd, Comm/Nav, GAC, Fuel cell, S/M, Crypto, and A/R.

2.1.9.2. Tow supervisor.

2.1.9.3. Tow vehicle driver (for ice and snow conditions the tow vehicle will have chains installed).

2.1.9.4. Two wing walkers.

2.1.9.5. Tail walker.

2.1.9.6. Fire bottle monitor.

2.1.9.7. Slip hazard patrol.

2.1.9.8. Hangar door operators.

2.1.9.9. If aircraft is to taxi across the fire lane, wing walkers from tow will also stop traffic in the fire lane.

2.2. Aircraft Commander

2.2.1. It will be a combined operations group/logistics group (OG/LG) decision as to whether to launch from a hangar or from the flight line.

2.2.2. Fuel requirements must be coordinated and loaded prior to the aircraft entering the hangar. Fueling operations must be accomplished at least 100 feet from any inhabited building or structure IAW T.O. 00-25-172.

2.2.3. Early coordination with maintenance is necessary if the aircraft commander determines a communication system transmission check is required. This will allow the aircraft adequate time

to thaw and maintenance time to remove any slip hazards from the floor prior to passenger arrival. **NOTE:** Aircraft HF radios will not be transmitted in the hangar. HF radio transmissions inside the hangar may cause inadvertent discharge of the hangar fire suppression system.

2.2.4. Only the aircrew will operate the APU (C-32A only) in the hangar and only after the primary DV has arrived at the aircraft.

2.2.5. The pilot will coordinate ground power removal signals, towing, and engine start procedures with the crew chief prior to DV arrival.

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Commander